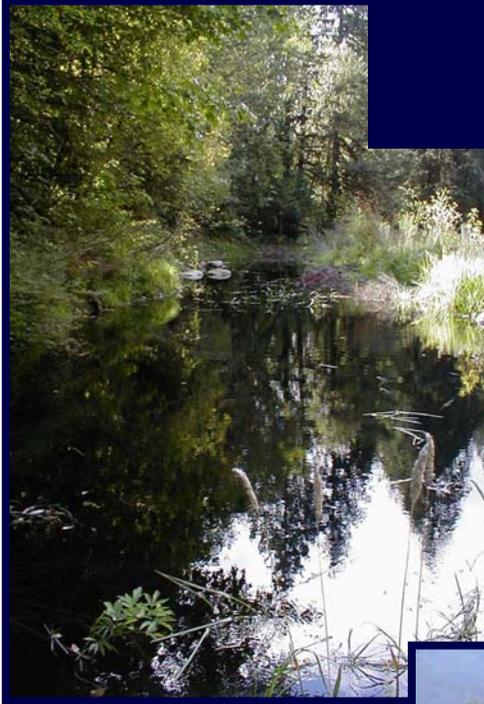
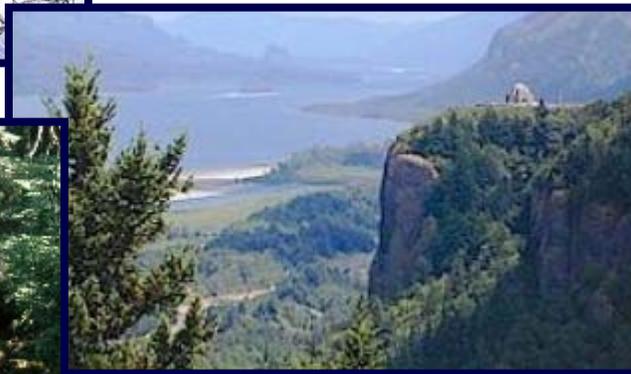


# Lower Columbia Salmon Recovery And Fish & Wildlife Subbasin Plan



Restoring Salmon And Steelhead  
To Healthy, Harvestable Levels



Clark, Cowlitz, Lewis, Skamania  
And Wahkiakum Counties



## VOLUME I – REGIONAL PLAN

Lower Columbia Fish Recovery Board  
December 15, 2004



# Lower Columbia Salmon Recovery And Fish & Wildlife Subbasin Plan

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VOLUME I – REGIONAL PLAN

Lower Columbia Fish Recovery Board

December 15, 2004

The Lower Columbia Fish Recovery Board unanimously adopts  
The Lower Columbia Salmon Recovery and Fish and Wildlife Subbasin Plan  
*With the understanding that*  
Implementation of the schedule and actions for local jurisdictions  
Depends upon funding and other resources;

APPROVED THIS 10<sup>th</sup> DAY OF DECEMBER 2004.

Dave Andrew	Betty Sue Morris
John Barnett	Al McKee
Bill Dygert	Jeff Rasmussen
Mark Doumit	Don Swanson
Dennis Hadaller	Randy Sweet
Henry Johnson	Chuck TenPas
Tim Leavitt*	George Trott
Tom Linde	

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\* Endorsed post rata.

## ***Preface***

This is one in a series of volumes that together comprise a Recovery and Subbasin Plan for Washington lower Columbia River salmon and steelhead:

--	Plan Overview	<i>Synopsis of the planning process and regional and subbasin elements of the plan.</i>
Vol. I	Regional Plan	<i>Regional framework for recovery identifying species, limiting factors and threats, the scientific foundation for recovery, biological objectives, strategies, measures, and implementation.</i>
Vol. II	Subbasin Plans	<i>Subbasin vision, assessments, and management plan for each of 12 Washington lower Columbia River subbasins consistent with the Regional Plan. These volumes describe implementation of the regional plan at the subbasin level.</i>  <i>II.A. Lower Columbia Mainstem and Estuary</i> <i>II.B. Estuary Tributaries</i> <i>II.C. Grays Subbasin</i> <i>II.D. Elochoman Subbasin</i> <i>II.E. Cowlitz Subbasin</i> <i>II.F. Kalama Subbasin</i> <i>II.G. Lewis Subbasin</i> <i>II.H. Lower Columbia Tributaries</i> <i>II.I. Washougal Subbasin</i> <i>II.J. Wind Subbasin</i> <i>II.K. Little White Salmon Subbasin</i> <i>II.L. Columbia Gorge Tributaries</i>
Appdx. A	Focal Fish Species	<i>Species overviews and status assessments for lower Columbia River Chinook salmon, coho salmon, chum salmon, steelhead, and bull trout.</i>
Appdx. B	Other Species	<i>Descriptions, status, and limiting factors of other fish and wildlife species of interest to recovery and subbasin planning</i>
Appdx. C	Program Directory	<i>Descriptions of federal, state, local, tribal, and non-governmental programs and projects that affect or are affected by recovery and subbasin planning</i>
Appdx. D	Economic Framework	<i>Potential costs and economic considerations for recovery and subbasin planning</i>
Appdx. E	Assessment Methods	<i>Methods and detailed discussions of assessments completed as part of this planning process</i>

This plan was developed by of the Lower Columbia Fish Recovery Board and its consultants under the Guidance of the Lower Columbia Recovery Plan Steering Committee, a cooperative partnership between federal, state and local governments, tribes and concerned citizens.

### **Lower Columbia Fish Recovery Board**

#### **Current Members**

Dave Andrew	Hydro-Electric Representative	Cowlitz PUD
John Barnett*	Tribal Representative	Cowlitz Indian Tribe
Mark Doumit	Legislative Representative	WA State Senate
Bill Dygert*	Clark County	Citizen
Dennis Hadaller	Lewis County	Commissioner
Henry Johnson*	Wahkiakum County	Citizen
Tim Leavitt	SW WA Cities Representative	City of Vancouver
Jeff Rasmussen	Cowlitz County	Commissioner
Tom Linde	Skamania County	Citizen
Al McKee*	Skamania County	Commissioner
Betty Sue Morris*	Clark County	Commissioner
Don Swanson	SW WA Environmental Representative	Citizen
Randy Sweet*	Cowlitz County & Private Property Interests	Citizen
Chuck TenPas	Lewis County	Citizen
George Trott	Wahkiakum County	Commissioner

### **Lower Columbia Fish Recovery Board**

#### **Past Members**

Glenn Aldrich*	Lewis County	Commissioner	1998-1999
Dean Dossett*	SW WA Cities Representative	City of Camas	1998-2003
Marc Duboiski	Lewis County	Commissioner Designee	1999-2000
Tom Fox*	Lewis County	Citizen	1998-2002
Gary Morningstar*	Skamania County	Citizen	1998-2002
Bill Lehning	Cowlitz County	Commissioner	2003-2004
Ron Ozment	Wahkiakum County	Commissioner	1999-2003
John Pennington*	Legislative Representative	WA State House of Representatives	1998-2001
George Raiter	Cowlitz County	Commissioner	2001-2002
Joel Rupley*	Cowlitz County	Commissioner	1998-2001
Dan Smalley*	Wahkiakum County	Commissioner	1998-1999
Leon Smith*	Hydro-Electric Representative	Cowlitz PUD	1998-2000
Jim Stolarzyk*	SW WA Environmental Representative	Citizen	1998-2000

*\*Charter Member*

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John Barnett, Cowlitz Indian Tribe

Chinook Tribe

Dean Dossett, SW WA Cities Representative

Patty Dornbusch, NOAA-Fisheries

Bill Dygert, SW WA Citizen

Tony Grover, Northwest Power and Conservation Council

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Tim Leavitt, SW WA Cities Representative

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Betty Sue Morris, SW WA County Commissioners Representative

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# 1 Introduction

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This is an introduction section for the regional volume of the recovery plan. It discusses the scope and context of the overall Washington Lower Columbia Recovery/Subbasin planning effort being led by the Lower Columbia River Fish Recovery Board. It describes the healthy and harvestable planning goal for salmon and steelhead. It explains how this planning process addresses the federal Endangered Species Act (ESA), Northwest Power and Conservation Council (NPCC) subbasin plans for fish and wildlife adversely affected by the development and operation of the Columbia River hydropower system, and state salmon recovery and watershed management planning processes. It describes the area and time frame addressed by the plan. The section also provides an overview of the plan development process and the framework that brings different stakeholders and interested parties together as participants.

## 1.1 Vision

This plan is intended to serve as 1) a recovery plan for Washington lower Columbia salmon and steelhead populations and 2) a Northwest Power and Conservation Council Fish and Wildlife Plan for eleven lower Columbia subbasins. The vision is of a scientifically credible, socially and culturally acceptable, and economically and politically sustainable plan to:

- Restore the region's four fish species listed as threatened under the federal Endangered Species Act (ESA) to healthy, harvestable levels, and;
- Protect and enhance other fish and wildlife species that have been adversely affected by human actions, including the development and operation of the Federal Columbia River Power System.

Salmon, steelhead and trout of the lower Columbia basin, and its Washington tributaries, have been depleted to the point where Chinook salmon, chum salmon, steelhead trout, and bull trout have been listed as Threatened under the federal Endangered Species Act (ESA), and on May 28, 2004, Columbia River coho salmon were proposed for listing as threatened. Perhaps more importantly, these species together once supported thriving fisheries that are now greatly diminished and dependent mostly on hatchery production.

Other fish and wildlife species of the lower Columbia basin have been affected by the operation of the Federal Columbia River Power System and ecosystem changes stemming from a wide range of human activities. Some species such as sturgeon, lamprey, eulachon, and Columbian whitetail deer have been adversely affected by the loss of habitat upon which they depend. Other species, including northern pikeminnow, Caspian terns, and smallmouth bass, have thrived in altered habitat conditions which have altered the balance of predator-prey relationships. Finally, introduced non-native plant and animal species have displaced native species or compete with native species for habitat and nutrients. An example of such a species is American shad. Introduced in California during the late 1800s, two to four million adult shad return annually to the lower Columbia basin to spawn.

This plan provides a roadmap for the first stage of recovery implementation. It includes a comprehensive set of beneficial actions that are sound and address the range of threats as they are understood at this time. Adaptive management will be a critical element of plan implementation because existing information is too uncertain to definitively identify exactly how much of which actions will be sufficient to achieve recovery. And so the plan includes an implementation framework by which the plan will evolve based on results of monitoring, refinements in prioritization methods, additional information on costs and other economic factors, and specific implementation plans to be developed by implementing entities. The plan can succeed only if local, state, and federal interests take ownership and are involved in implementation and adaptive management.

### VISION

**Washington lower Columbia salmon, steelhead, and bull trout are recovered to healthy, harvestable levels that will sustain productive sport, commercial, and tribal fisheries through the restoration and protection of the ecosystems upon which they depend and the implementation of supportive hatchery and harvest practices; and**

**The health of other native fish and wildlife species in the lower Columbia will be enhanced and sustained through the protection of the ecosystems upon which they depend, the control of non-native species, and the restoration of balanced predator/prey relationships.**

## 1.2 *An Integrated Plan*

The planning process integrates the following four interrelated initiatives to produce a single Recovery/Subbasin Plan for the Washington portion of the lower Columbia that is intended to serve the following purposes:

- Endangered Species Act recovery planning for four salmonid species listed as threatened: Chinook salmon, chum salmon, steelhead, and bull trout. Coho salmon have also been included since they are a candidate species for listing.
- Northwest Power and Conservation Council (NPCC) fish and wildlife subbasin planning for eight full and three partial subbasins.
- Watershed planning pursuant to the Washington Watershed Management Act, RCW 90-82.
- Habitat protection and restoration pursuant to the Washington Salmon Recovery Act, RCW 77.85.

This integrated approach provides significant benefits, including:

- Ensuring consistency and compatibility of goals, objectives, strategies, priorities and actions;
- Eliminating redundancy in the collection and analysis of data; and
- Establishing the framework for a partnership of federal, state, tribal and local governments under which agencies can effectively and efficiently coordinate planning and implement efforts for restoration of listed salmonids and the enhancement of other fish and wildlife species of interest.

### 1.2.1 **ESA Recovery Planning**

All native salmonid species in the lower Columbia region have been listed or proposed for listing under the ESA. Listings may be made for species, subspecies, and distinct population segments. The basic unit used by NOAA Fisheries for listing and delisting anadromous salmon and steelhead species is the Evolutionarily Significant Unit (Waples 1991). An ESU is a distinctive group of Pacific salmon or steelhead populations that is uniquely adapted to a particular area or environment and cannot be replaced. Three ESUs have been listed under the ESA as “threatened” and one is proposed for listing. Bull trout are listed under the jurisdiction of the USFWS which defines listing units as distinct population segments.

- The Lower Columbia Chinook salmon Evolutionarily Significant Unit (ESU) was listed as threatened under the ESA on March 24, 1999.
- Lower Columbia chum salmon, including all naturally spawning populations in the Columbia and its tributaries in Washington and Oregon, were listed as threatened on March 25, 1999.
- On March 19, 1998, NMFS listed the Lower Columbia steelhead ESU as threatened under ESA. The Grays, Elochoman, Skamokawa, Abernathy, Mill, and Germany steelhead populations are in the Southwest Washington ESU and are not listed under the ESA.
- Columbia River coho were proposed for listing as threatened on May 28, 2004.
- On June 10, 1998, the United States Fish and Wildlife Service (USFWS) listed bull trout in the Columbia and Klamath river basins as threatened under the ESA.

- On July 5, 2002, the USFWS withdrew the Proposed Rule to List the Southwestern Washington/Columbia River Distinct Population Segment of the Coastal Cutthroat Trout as Threatened. However, Washington Department of Fish and Wildlife (WDFW) describes cutthroat as depressed in all rivers entering the Columbia from its mouth to the Kalama River, citing either long-term negative trends or short-term severe declines.

As the listing agency for anadromous salmonids, NOAA Fisheries is responsible for developing recovery plans under ESA §4(f) for Chinook and chum salmon and steelhead. The USFWS is responsible for developing a bull trout recovery plan. The intent of NOAA Fisheries is to develop recovery plans through a collaborative effort involving federal and state agencies, tribes, local governments, and the public. Under the proposed approach, local recovery plans and subbasin plans being developed in Washington and Oregon for the Lower Columbia and Upper Willamette ESUs will be used as the basis for an ESA recovery plan for NOAA's Willamette/Lower Columbia Recovery Domain, which includes the three listed Lower Columbia ESUs and the listed Upper Willamette spring chinook and steelhead ESUs. The Lower Columbia Fish Recovery Board (LCFRB) is coordinating local recovery planning efforts for the Washington portion of the lower Columbia region. The state of Washington intends to submit the LCFRB plan to NOAA Fisheries for use as the basis for the Washington portion of the domain-wide plan

A coordinating policy forum—the Executive Committee for Lower Columbia and Willamette River Salmonid Recovery (ExCom)—has been established for this domain. This group, representing major state, federal, local, and tribal stakeholders, is coordinating development of a recovery plan for the Willamette/Lower Columbia domain. The Ex Com's goal is for a plan that is "highly likely to be implemented and effective for all threatened and endangered salmon species and their habitats" and that addresses ESA and other related planning needs. The Ex Com's responsibilities include working to align ongoing regional, state, and local processes with recovery planning; addressing bi-state and tribal coordination issues; concurring on recovery goals and other elements of recovery plans; and ensuring adequate integration of the scientific information with recovery actions and strategies.

NOAA Fisheries has also established the Willamette/Lower Columbia Technical Recovery Team (TRT) to make recommendations on biological criteria that would indicate when populations or ESUs had a high probability of persistence. The TRT is comprised of scientists from NOAA Fisheries, USFWS, state agencies, academic institutions, and private consulting firms. The TRT has submitted a series of recommendations to NOAA Fisheries. The biological goals for salmon and steelhead in this plan are based on and explicitly incorporate the work of the TRT.

Under ESA §4(f) a recovery plan must include the following:

- Site-specific management actions necessary for the conservation and survival of the species,
- Objective, measurable criteria which, when met, would result in a determination that the species be removed from the list (i.e., delisting), and
- Estimates of the time required and cost to carry out those measures needed to achieve recovery.

This plan contains recovery goals, a threats assessment, and actions necessary for the recovery of currently listed salmon and steelhead ESUs. The vision of the LCFRB plan is for all

Lower Columbia salmon and steelhead to be recovered to “healthy, harvestable levels that will sustain productive sport, commercial, and tribal fisheries, through the restoration and protection of the ecosystems upon which they depend and the implementation of supportive hatchery and harvest practices.”

ESA delisting can occur at a point when a listed species and its ecosystem is restored and its future is safeguarded to the point that protections under the ESA are no longer needed. Decisions to delist are based on a species’ biological status (biological delisting criteria) and on the status of the threats to the species (threats criteria), as identified in the ESA §4(a)(1). This plan’s vision for recovery encompasses ESA recovery, in the sense that ESA delistings could be achieved while working toward the plan’s vision for recovery.

The USFWS has federal jurisdiction over bull trout, which are listed as threatened under ESA, as well as cutthroat trout, which are currently not federally-listed. The Bull Trout Draft Recovery Plan, developed collaboratively with other federal, state, Tribal and private recovery unit team members, covers an extensive geographical area of the western states. The draft recovery plan represents four Distinct Population Segments, each of which is further segmented into recovery units which are the primary elements for recovery plan development. The LCFRB recovery plan builds on provisions of the USFWS Lower Columbia Recovery Unit plan to ensure that bull trout recovery efforts are integrated into the broader salmonid recovery strategies and actions for the lower Columbia. Much of the USFWS Lower Columbia Recovery Unit falls within the LCFRB planning area. Although the USFWS has delayed production of the final bull trout recovery plan, pending the outcome of a 5-year-status review, the LCFRB plan addresses bull trout recovery. The USFWS is a participant in the planning process and providing advice on bull trout conservation.

Well developed recovery or management plans exist for other listed species including bald eagle and Columbia whitetail deer. These plans augment this Plan and provide the basis for developing biological objectives and strategies for these species. This subbasin management plan will address the integration of the various species-specific management plans into a balanced approach for all focal species.

### **1.2.2 NPCC Subbasin Planning**

The NPCC was created by Congress in 1980 to give Washington, Oregon, Idaho, and Montana a voice in how the region plans for its energy needs, while at the same time mitigating the effects of the Federal Columbia River Power System on fish and wildlife resources.<sup>1</sup> To this end, the Council has developed the Columbia Basin Fish and Wildlife Program. The program sets forth goals and strategies for the protection and enhancement of fish and wildlife resources. The Council uses the Program to solicit and evaluate proposals for on-the-ground projects and research. Priority proposals are forwarded to the Bonneville Power Administration (BPA) for funding. The Council has initiated efforts to update its Fish and Wildlife Program. A key element is the development of individual plans for the 62 subbasins within the Columbia basin. Eight of these subbasins fall totally within the lower Columbia region in Washington. Three others (Columbia Estuary, Lower Columbia, and Columbia Gorge) are shared with the state of Oregon. The LCFRB is under contract with the NPCC to develop subbasin plans for the eight

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<sup>1</sup> The Northwest Power and Conservation Council (NPCC) was formerly referred to as the Northwest Power Planning Council.

Washington subbasins and to work with the Lower Columbia River Estuary Partnership to develop plans for the three shared subbasins.

Subbasin plans:

- Identify the goals for fish, wildlife, and habitat;
- Define objectives that measure progress toward the those goals;
- Establish strategies to achieve the objectives; and
- Incorporate and build upon existing fish and wildlife information and activities.

Completed subbasin plans will be adopted as part of the Council's Fish and Wildlife Program and will help direct BPA funding of projects that protect, mitigate and enhance fish and wildlife that have been adversely impacted by the development and operation of the Columbia River hydropower system. The Council's effort is also linked to and accommodates the needs of other programs in the basin that affect fish and wildlife. Along with the NOAA Fisheries and the USFWS, the NPCC and BPA also intend to use the adopted subbasin plans to help meet the requirements of the 2000 Federal Columbia Power System Biological Opinion.

### **1.2.3 Washington Watershed Planning**

The state Watershed Management Act (RCW 90.82) provides local communities the opportunity to plan for the future use of their water resources in consultation with state agencies. To facilitate this planning, the state has been divided into Water Resource Inventory Areas (WRIAs). There are five WRIAs in the lower Columbia. Watershed planning efforts are underway in all five areas. The LCFRB coordinates watershed planning in four of the five lower Columbia WRIAs and is an active participant in planning for the fifth WRIA. Watershed plans for these WRIAs will address issues associated with:

- Water quantity, including the availability and current use of water and actions needed to meet future needs for fish and people;
- Water quality, including current water quality problems, priorities for addressing these problems, and water quality monitoring;
- Stream flows, including the adequacy of existing flows for fish and other in-stream uses and measures to protect or enhance stream flows; and
- Habitat, including the current condition of fish habitat and measures to protect or enhance habitat to support salmon recovery efforts.

Water quantity and quality and stream flow studies and data collected by the watershed planning initiatives will be incorporated in the regional recovery plan. Habitat data collected by the recovery planning effort will be shared with the watershed planning effort. Policies, strategies, actions, and priorities will be coordinated to ensure that they are compatible and complement each other.

### **1.2.4 Washington Salmon Habitat Protection and Restoration**

The Washington Salmon Recovery Act (RCW 77.85):

- Provides for the funding of habitat protection and restoration efforts;
- Requires local and regional program organizations to identify and prioritize project needs; and

- Directs that the Washington Department of Fish and Wildlife develop guidance for regional salmon recovery efforts.

The Salmon Recovery Funding Board (SRFB) coordinates the funding process on the statewide level. It establishes program policies and directions as well as grant requirements. It screens project proposals and awards grants. Lead entities coordinate the process on the local or regional level. They develop habitat protection and restoration strategies for their area. They solicit, evaluate, rank, and propose projects to the SRFB. The LCFRB serves as the lead entity for the lower Columbia region. In this capacity, the Board has developed and annually updated and expanded a lower Columbia habitat strategy which provides a basis for prioritizing proposed habitat projects. Development of the strategy has been merged with the recovery planning effort and strategy has evolved into an integral element of the Plan.

### 1.3 Geographic Planning Area

The 5,700 square mile planning area encompasses the entire Lower Columbia Salmon Recovery Region (except the White Salmon basin, omitted at the request of Klickitat County). It is comprised of eight full NPCC subbasins: the Grays, Elochoman, Cowlitz, Kalama, Lewis, Washougal, Wind, and Little White Salmon. Three additional subbasins are shared with the state of Oregon: Columbia Estuary, Lower Columbia, and Columbia Gorge.

The planning area includes the Washington portion of the mainstem and estuary of the lower Columbia River as well as 18 major and a number of lesser tributary watersheds (Figure 1). These include the Chinook, Grays, Skamokawa, Elochoman, Mill, Abernathy, Germany, Cowlitz, Coweeman, Kalama, Lewis, Lake, Washougal, Duncan, Hardy, Hamilton, Wind, and Little White Salmon rivers. In all, the tributaries total more than 1,700 river miles. The White Salmon subbasin was not included in the subbasin planning process. However, status and objectives were considered in this plan for salmon in this subbasin because these populations were part of the listed unit that includes other Washington lower Columbia River populations.

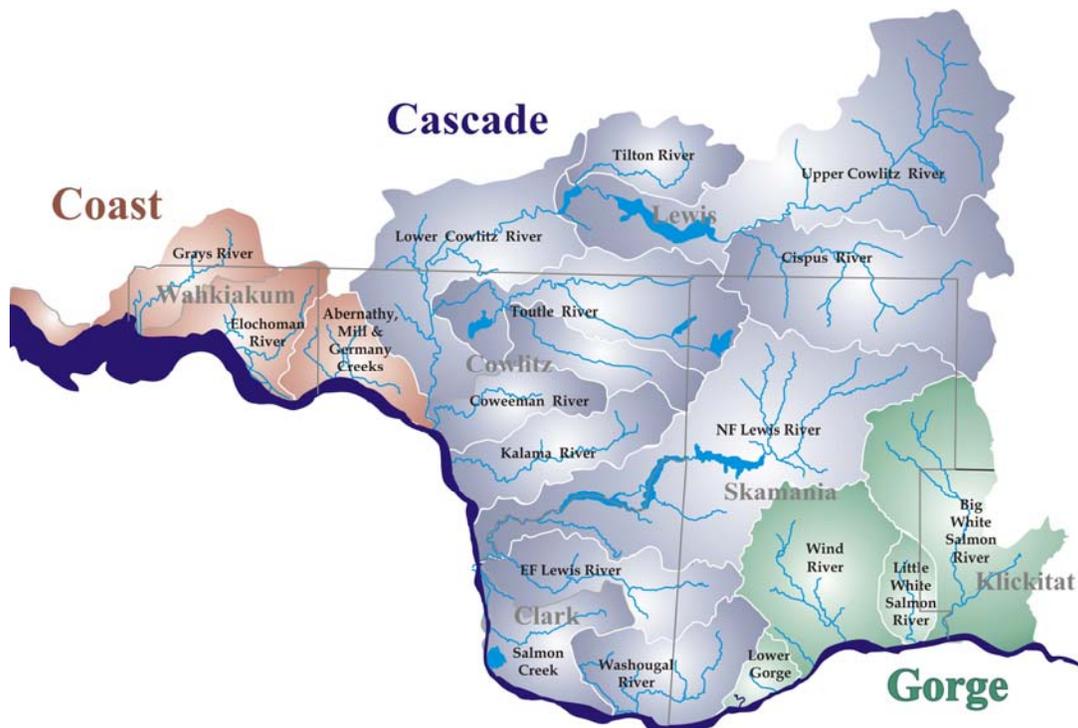


Figure 1. Lower Columbia River watersheds considered in this planning process.

## **1.4 Planning Horizon**

The Plan uses a planning period or horizon of 25 years. The goal is to fully implement within this time period all actions needed achieve recovery of the listed salmon species and the biological objectives for other fish and wildlife species of interest. Declining species trajectories should be reversed and species should demonstrate improvements consistent with biological objectives. It is recognized, however, that full restoration of habitat conditions and watershed process for all species of interest will likely take 75 years or more.

## **1.5 Plan Development**

The Plan was developed using a two-phased approach intended answer five key questions for the species of interest. These questions are:

- Where are we now?
- How did we get here?
- Where do we need to go?
- How do we get there?
- How do we know when we're there?

The first phase involved the development of technical information that provides a foundation for answering the first three questions. The technical foundation is a comprehensive collection and analysis of information relating to the Plan's focal fish and wildlife species and the environmental conditions and human activities that affect their health and viability. It describes and analyzes current conditions and trends, and explains the analytical methods used. Technical foundation material is contained in a series of Technical Appendices to the plan.

The second phase involved the development of the Plan itself. It focused on the last two of the five questions. The plan provides biological objectives; regional and subbasin strategies, measures and actions; implementation plans; and monitoring and adaptive management measures.

The Plan provides common goals and a coordinated course of action that is scientifically sound, acceptable to the public, and economically sustainable. Protection, restoration, and enhancement actions are selected to provide maximum benefit and ensure the efficient use of resources. The plan focuses on outcomes and allows implementing agencies and other entities the flexibility to craft innovative, yet scientifically sound, approaches that best fit local conditions and values.

## **1.6 Planning Organization and Participants**

The LCFRB led and coordinated the development of the Plan. The Board was established by state statute (RCW 77.85.200) in 1998 to oversee and coordinate salmon and steelhead recovery efforts in the lower Columbia region of Washington. It is comprised of representatives from the state legislature, city and county governments, the Cowlitz Tribe, private property owners, hydro project operators, the environmental community, and concerned citizens. The LCFRB is committed to finding solutions that restore fish and provide for the needs of the citizens of the region. Adoption of the final plan will require consensus of all Board members.

Since the success of salmon and steelhead recovery and enhancement of other fish and wildlife species will require the support and coordinated efforts of federal, state, tribal, regional,

and local entities, a collaborative approach was used to develop the Plan. Partners in the planning process include:

- Federal Agencies: NOAA Fisheries, USFWS, the U.S. Forest Service (USFS), and the U.S. Army Corps of Engineers (USACE).
- Tribal Governments: Cowlitz Tribe, the Yakama Nation, and the Chinook Tribe.
- Washington State Agencies: The WDFW, the Governor's Salmon Recovery Office (GSRO), the Department of Ecology (WDOE), the Department of Natural Resources (WDNR), the Department of Transportation (WSDOT), and the Department of Agriculture (WDOA).
- Regional Organizations: The NPCC, the Lower Columbia River Estuary Partnership (LCREP), the Lower Columbia/Willamette ESA Executive Committee, and the WRIA 25/26 and 27/28 Watershed Planning Units.
- Local Governments: Clark, Cowlitz, Lewis, Skamania, and Wahkiakum counties and the cities of Vancouver and Camas.

The partners participated through involvement on the LCFRB, the Recovery Planning Steering Committee (RPSC), working groups, public outreach, and other coordinated efforts.

The LCFRB utilized a RSPC to facilitate the Plan's development. The Steering Committee was responsible for the overall direction and oversight of the recovery planning initiative. The Committee maintained a work plan and schedule, monitored progress, reviewed draft materials, and advised on policy issues. RPSC members represented the interests of their organizations and were responsible for ensuring that decisions were properly communicated and supported within their organizations. The Committee makes decisions by consensus. Members included local governments and citizen representatives from the LCFRB, NOAA Fisheries, USFWS, NPCC, LCREP, WDFW, Governor's Salmon Recovery Office, Washington Department of Ecology, the USFS, the Cowlitz Tribe, the Yakama Nation, and the Chinook Tribe.

Work groups were used to address specific issues and prepare recommendations or documents for RPSC consideration. The work groups were used to secure the expertise or knowledge needed to successfully complete the Plan as well as to broaden participation in the planning process. The composition of a work group depended on the issues to be addressed or the tasks at hand. Members are selected based on their knowledge or expertise. Work groups included the following:

- The Fish Work Group that provided technical assistance and advice to the RPSC regarding the development of plan elements dealing with recovery goals and biological objectives and the status, life history and environmental needs of salmonids.
- The Factors Limiting Recovery Work Group that provided technical assistance and advice to the RPSC for developing plan elements dealing with factors limiting the recovery of salmonids and watershed assessment activities.
- The Programs Work Group that provided assistance and advice to the RPSC for developing a Plan element that identifies, inventories, and characterizes programs that affect fish resources and their recovery.
- The Recovery Scenario Work Group that assisted in the development of the salmon and steelhead recovery scenarios.

- The Regional Strategy Work Group that assisted in drafting the Plan's regional strategies and measures for Columbia estuary, mainstem, and tributary habitat, hatchery operations, hydroelectric projects, harvest management, and ecological interactions.
- The Estuary Science Panel that assisted with the estuary and mainstem assessment.

### **1.7 Community and Public Participation**

- In addition to the use of work groups, opportunities for broader community and public participation were provided during various stages of the Plan's development.
  - A 30-day public comment period was held to solicit agency and public comments on the Plan's Technical Foundation. A series of public workshops were held to review and discuss the Technical Foundation.
  - Three Scenario Evaluation Team meetings brought together agency personnel, interested citizens, economic interests, timber companies, local government officials, and non-profit organizations to discuss plausible recovery scenarios.
  - Four workshops were held to bring together a broad cross section of stakeholders to review and comment on regional strategies and measures.
  - Numerous presentations were made to agencies, local governments, groups, and organizations regarding recovery issues and the planning process.
  - A 60-day public comment period on the draft plan in conjunction with the NPPC subbasin plan review process.
  - A 30-day public comment period will be held on this second draft of the plan which was revised based on comments received on the earlier draft. Public workshops are also being conducted as part of this review.

### **1.8 Coordination with Oregon**

Recovery of listed lower Columbia River salmon ESUs will require significant improvements in both Washington and Oregon populations to meet prescribed standards. This plan assumes improvements in Oregon salmon populations that represent proportional contributions to recovery based on the relative numbers and status of Washington and Oregon ESUs. Specific population improvements were identified for Oregon as placeholders for an Oregon recovery planning process and do not represent specific agreements or obligations. Assumptions were necessary for analysis of whether the Washington Recovery Scenario was consistent with recovery criteria identified by a Willamette/Lower Columbia Technical Recovery Team. These assumptions were developed in collaboration with Oregon through the Willamette/Lower Columbia Executive Recovery committee.